19980301.ba v01_n945.bam.980301 v01_n946.bam.980301

```
>From ???@??? Sun Mar 01 02:55:38 1998
Message-Id: <199803010607.AAA11723@sco.theporch.com>
Date: Sun,  1 Mar 1998 00:07:42 CST
Subject: BOATANCHORS digest 1945
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BOATANCHORS Digest 1945

Topics covered in this issue include:

1) Buncha Baby BAs for Barter
   by wallace@world.std.com (Andy Wallace)
2) SID AROTSKY'S PARTS
   by "ROBERT W DOWNS, WA5CAB" <RWDowns_WA5CAB@compuserve.com>
3) TCS AC SUPPLIES (HOMEBREW)
   by "ROBERT W DOWNS, WA5CAB" <RWDowns_WA5CAB@compuserve.com>
4) Re: Sylvania tube a '50s fugative?
   by jackiv@juno.com (John M Iverson)
5) Hickock 539A tube tester info needed
   by Bill Coleman N2BC <n2bc@ibm.net>
6) 12AU7 testing
   by Don Reaves <dr@cei.net>
7) FS: Dynamotors
   by George Humphrey <gah@koyote.com>
8) 20s rehash rx: weird RF idea
   by Bill Jarvis <B.H.Jarvis@hw.ac.uk>
9) WTB HRO-60
   by "Alexander N. Gerli" <angerli@connix.com>
10) Re: Pot question?
   by Bill Jarvis <B.H.Jarvis@hw.ac.uk>
11) Re: bouncy drake meters
   by Bill Jarvis <B.H.Jarvis@hw.ac.uk>
12) Re: 12AU7 testing
   by Bill Jarvis <B.H.Jarvis@hw.ac.uk>
13) Re: FS: Dynamotors
   by Bill Jarvis <B.H.Jarvis@hw.ac.uk>
14) Re: Pot question?
   by "Scott Alfter" <salfter@ibm.net>
15) Re: Hickock 539A tube tester info needed
   by Henry van Cleef <vancleef@netcom.com>
16) Re: Pot question?
   by Henry van Cleef <vancleef@netcom.com>
17) Re:Opening up "crystal cases"
   by Glenn Finerman <glennfin@mjet.com>
18) Heavy duty bandswitch?
   by Glenn Finerman <glennfin@mjet.com>

Date: Sun, 01 Mar 1998 00:21:40 GMT
From: wallace@world.std.com (Andy Wallace)
To: boatanchors@sco.theporch.com
Subject: Buncha Baby BAs for Barter
Message-ID: <34f8a970.29549@world.std.com>

See
http://world.std.com/~wallace/forsale.htm
for details.

I am going through the 20,000 Boatanchors messages I have backed up here on the HD and I think it would be good if I could get rid of a couple of projects I won't get to anytime soon! Usual draw-from-a-hat rules of Wallace apply. I am not a dealer.

Now, to read another couple hundred BA messages. <grin> Sorry if it seems like all I post are forsale messages; I will get back into the conversation soon and this will be my LAST FS for some time.

--Andy
wallace@world.std.com

Date: Sat, 28 Feb 1998 19:26:53 -0500
From: "ROBERT W DOWNS, WA5CAB" <RWDowns_WA5CAB@compuserve.com>
To: BOATANCHORS <boatanchors@theporch.com>
Subject: SID AROTSKY'S PARTS
Message-ID: <199802281927_MC2-3513-D2E2@compuserve.com>

Group,

Several of you have been waiting for me to inventory the BC-348 and
AN/ART-13 parts which I got from Sid three years ago. Prompted by a fell=
ow
collector in town on business, we went to my storage buildings this morni=
ng
and started digging. We didn't get through all of the boxes as he had a
plane to catch, but I now have a fair idea of what's there. We didn't fi=
nd
any mounts, nor any DM-28's or pieces thereof, but I didn't really expect=

to, as Sid's stuff had been picked over before he sent the remainder to m=
e.
 However, there were some BC-348 output transformers, 8-pin male connecto=

rs
for the rear of the receivers (no female ones but Fair had those recently=
),
some T-47 antenna relays (both the complete unit and just the glass vacuu=
m
relay) and the equivalent unit for the CU-32. We found two CDA-T crystal=

oscillator units (these are essentially what turn a T-47/ART-13 into a
T-412/ART-13B) with what appeared to be the installation cabling kits. I=

didn't have the manual with me to confirm that everything was there, and =
by
this time we were "tunneling" as we had run out of space to restack stuff=
=2E =

There were a lot of other misc. pieces, like I.F. transformers, RF chokes=
,
tuning capacitors, and selector units (the knobs sure look nice, though),=

most of which my wife will probably get to figure out what to do with one=

day. :-).

If anyone needs any of this, reply direct to me or via snail mail, not to=

the net.

73, Robert W. Downs, WA5CAB
RWDowns_WA5CAB@compuserve.com
Houston, TX

Date: Sat, 28 Feb 1998 19:26:49 -0500
From: "ROBERT W DOWNS, WA5CAB" <RWDowns_WA5CAB@compuserve.com>
To: BOATANCHORS <boatanchors@theporch.com>
Subject: TCS AC SUPPLIES (HOMEBREW)
Message-ID: <199802281927_MC2-3513-D2E0@compuserve.com>

Group,

TCS AC supplies weigh a ton, apparently because they are made of unobtani=
um
(atomic weight estimated @ 455). I've had several inquiries lately, but
I'm down to my "keepers". I have a lot of dynamotor supplies (both singl=
e
and dual) but a couple of collectors mentioned that if they were going to=

have to build a supply, they'd rather build a supply to run the set
directly off of AC instead of building a 12 or 24VDC supply to run the
dynamotor(s) to run the set. After several back and forth discussions of=

how to best do this, it finally occurred to me that in the batch of stuff=

that I got out of PA in '94 were several 21881 dual dynamotor supplies
which have, shall we say, seen better days. Remove the two dynamotors,
install a suitable transformer(s), rectifiers and filters, hook the HV up=

to the appropriate locations, and you're off to the races. The rest of t=
he
interconnecting wiring is already done. One other wire has to be moved t=
o
take the receiver power switch off of the LV line, but that's about it.. =
 =

The resultant supply will be a little smaller than the PP-380/URR, and
unlike the PP-380, will be wired for the remote speaker. I don't have an=
y
suitable transformers, but maybe someone else has a stash of those. The
dynamotor supplies have one filter choke, 8 HY @100MA, which should do fo=
r
the receiver supply, and I have some extra chokes (the original supply us=
ed
two). I also have some 2.5HY @ 280 MA chokes which might do for the
transmitter supply, although they are open frame rather than canned. I
have around 20 of the dynamotor supplies that I'm willing to strip. Most=

will need cleaning and painting, and the connectors will need cleaning. =

I'll remove the dynamotors to save shipping weight and sell the bases for=

$25.00 plus UPS. I'll also include a copy of the schematic of the most
common (Ha) TCS AC supply. The chokes are $10.00 for the 8 HY and $2.50
for the 2.5 HY. I also have a lot of 4, 7 and 8-pin (octal) tube sockets=
,
but the size of the dynamotor base favors silicon diodes, and the
transformer filament windings would thus be available to supply the 12VDC=

required by the relays and the microphone.

If someone thinks that they have suitable transformers in adequate
quantities, maybe we can turn this into a kit thing.

As a final comment, I've seen a number of TCS transmitters and receivers=

over the years where some unkind individual had installed an octal or oth=
er
plug in place of the original Cannon "K" series connector. The dynamotor=

bases have the same plugs on them as the receivers, transmitters, and
remotes, and I noticed today a few dynamotor bases which were bent or
twisted, but with usable connectors. $12.50 for these, plus shipping, or=

I'll pull the connector subpanel for the same price, and you'll save on
shipping.

I hope that the foregoing doesn't sound too mercenary, but I'd like to
clean out and get out of at least one of my storage buildings this year,
and I don't want to do it by hauling a bunch of stuff to the dump. Anyon=
e
interested in Teletype Model 28 or 32 (33?) pieces, I've got some, but
you'll have to come pick it up. Likewise, AN/ARN-6 and some other misc
aircraft stuff, although some of that I guess I could ship. I'm beginnin=
g
to feel like the guy who let one too many homeless dogs follow him home. =

The "feeding" costs are getting out of hand.

73, Robert W. Downs, WA5CAB
RWDowns_WA5CAB@compuserve.com
Houston, TX

Date: Sat, 28 Feb 1998 15:30:26 CST
From: jackiv@juno.com (John M Iverson)
To: MNHopkins@aol.com
Cc: boatanchors@theporch.com
Subject: Re: Sylvania tube a '50s fugative?
Message-ID: <19980228.183208.10486.0.jackiv@juno.com>

you have a high energy "strobe"bulb, the hook of wire is the trigger lead
 jack
Jack Iverson   K0EWU   jackiv@juno.com

On Sat, 28 Feb 1998 11:06:05 EST MNHopkins <MNHopkins@aol.com> writes:
>A Sylvania Type R4330 is what it says on it, and it reminds me of a
>'50s TV
>show called Science Fiction Theater that used all sorts of bogus
>props.
>
>Indeed, the credits came over a "dish" what was a wok with an ice pick
>in the

>center -- my mom had one of the ice picks, but no wok in Dallas in
>'54.
>
>But they should have had a R4430. It has three pins on an octal
>looking
>ceramic base and calipers just over 5 inches high with a spiral of
>glass
>inside, wires from the three pins and a loop connecing one of the pins
>to the
>(??) plate.
>
>It came to me years ago, looks like a Christmas light built to mil
>spec, and I
>have no idea what it is or how/whether it works, but it is hollow
>state indeed
>and I won't get Jackataked for raising the question.
>
>73 de ab5L, michael in dallas, student of Tecraft and International
>(ICM) ham
>products and mementoes of Six Meters' Golden Age: 1957-58
>Michael Hopkins
>Box 226841
>Dallas, TX 75222   MNHopkins@AOL.com
>
>
>

____
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Or call Juno at (800) 654-JUNO [654-5866]

Date: Sun, 1 Mar 1998 02:00:32 -0800
From: Bill Coleman N2BC <n2bc@ibm.net>
To: boatanchors@theporch.com
Subject: Hickock 539A tube tester info needed
Message-ID: <BMSMTP8887463014wf2awdc@pop3.ibm.net>

A post for my buddy K2UXE. Pls respond to Mike at   k2uxe@ibm.net

****
Subject: 6EA8, 6U8 and the Hickock 539A

I have run into a puzzle... the pentode sections of the 6EA8 and 6U8 tubes
here measure WEAK... around 1000 on the 6000 scale. The chart says they should

indicate closer to 3000. The triode sections all test good.

Are ALL my 6EA8 and 6U8 tubes weak in the pentode section?

If anyone has service literature on the Hickock 539A tube tester I would appreciate hearing from you.

Thanks,

Mike K2UXE

Bill Coleman (N2BC)

Email: n2bc@ibm.net

Date: Sat, 28 Feb 1998 19:59:10 -0600 (CST)
From: Don Reaves <dr@cei.net>
To: "BoatAnchor's List" <boatanchors@sco.theporch.com>
Subject: 12AU7 testing
Message-ID: <Pine.LNX.3.91.980228195526.19267C-100000@kc5jh.reaves.net>

Can someone post the TV-7 settings for the 12AU7 tube? Somehow my data book is missing from my tester, and I need to test and find 20 good 12AU7's from my junk box pulls. I'm working (finally) on a CU-168 antenna coupler. Someone removed all the tubes.

What did I do with that manual?

```
Don Reaves                              WA5BBS
46 Arbor Oaks Drive                     AMI 1027    CCA 378
N. Little Rock AR 72120                 ARRL Life Member
dr@cei.net                              R-390 list manager
```

Date: Sat, 28 Feb 1998 20:57:34 -0600
From: George Humphrey <gah@koyote.com>
To: boatanchors@theporch.com, military-radio-guy@juno.com,
        forsale-swap@qth.net, glowbugs@www.atl.org
Subject: FS: Dynamotors
Message-ID: <1.5.4.32.19980301025734.00bdf95c@mail.koyote.com>

Ladies and Gents,

I have a small supply of AN/ARC-4X dynamotors that are a mix of New Old Stock and Reconditioned Old Stock. These units are supposed to work with AN/ARC-1, AN/ARC-4 & AN/ARC-12 radios. They are dual input 12 or 24VDC and are rated at output of 360 VDC @ 135mA. I also have new mating connectors for these units which are 8 pin Cinch Jones blade type connectors. I will sell these units at $20 each plus shipping from 75440 until they are either gone, or no one else wants them. I can either ship without opening the original packing and you take your chance, or I will open and test them for you, whatever you prefer. I have opened three and two were NOS and the other was reconditioned. All three worked great. Please contact me via e-mail at gah@koyote.com

73s George KC5WBV

Date: Sun, 01 Mar 1998 03:37:29 +2400
From: Bill Jarvis <B.H.Jarvis@hw.ac.uk>
To: greid <greid@easynet.co.uk>, rod <rod@scotnet.co.uk>,
        george <george@scotnet.co.uk>
Cc: boatanchors <boatanchors@theporch.com>,
        "j.m.osborne" <j.m.osborne@btinternet.com>
Subject: 20s rehash rx: weird RF idea
Message-ID: <199803010337.DAA13067@punt1.hw.ac.uk>

Done too much today; eyesight tiring so to bed, dreaming of stages yet to be designed. ("Designed"? Knocked together with first things that come to hand, more like, on the principle of change it if it's wrong. Yes, OK, maybe that's usually called designing. I AM calcularing best R, best C etc from the valve data tables before first attempts.

The worrying thing is, time-travel wise, I yearned for and found a slide rule although the calculator is ever in my pocket. Could Einstein have been wrong?

Thinking of the RF stage and the phase messup caused by Miller capacitance (not bad at long wave with a pentode, I grant you, but it exists), I just wonder what would happen if I made a very basic RC amplifier: untuned input, resistive anode load (didn't they call that "aperiodic" - to imply "not having a frequency?" Nice name for selling a resistance I must say!) THEN used a parallel LC tuned circuit for anode-to-grid feedback?

Idea 1 is that the Miller capacitance (Cag) would then be lost as part of the tuned circuit.

Idea 2 is you would have now a modern op-amp inverting amplifier circuit favouring the frequency you want. (Small C in series to stop DC getting onto the valuable antique grid of the tube which carries Marconi's signature...did they do signed first editions? [Looking in vain for the hard box it was published in.])

Of course there is something wrong with my argument or someone, Scott-Taggart probably (the man who gave me the valve KNEW him), would have done it in 1920.

Murphy's Law, too, states that it will burst into oscillation and deprive Edinburgh of the Test Match commentary. Now that's a GOOD idea.

I'm not sure whether I'm going to risk this one; for a start the VC is mounted already and has its rotor distinctly favouring direct connection to deck. That's the way it's been done in every wireless book I've ever seen, so that's the way it's gonna be - isn't it?

Which brings me back to the use of the slide-rule (it's stuck in top pocket now, as in vintage nerd. Oh yes you did.) Has anyone had a go at my earlier question, about possible frequency range using a single 50 to 1000 pF variable C and a single fixed L? I am hoping to embrace (for want of a better word) 800 metres (Scotland) and 1515 metres (Cricket).

(Used to be The Home Service for the whole of the UK but maybe now Scotland's going independent - wash my mouth out)

I'd also appreciate guesstimates (or carefully calculated figures) for that simplest single untapped L tuning coil, using a 16 mm plastic lavatory overflow pipe as former. (They didn't say toilet then. Not even the sexist "Gents". Bog maybe.)

There's plenty of 0.236 mm enamelled copper wire for winding it. I don't know what that is in swg; but then there are those who don't know what swg is. Alternatively some 26 swg polyurethane-coated stuff, but not so much of it. I prefer it because I can see it. I think 80 turns close wound is going to be plenty. Has anyone else who has a slide rule had the pleasure of checking? And would you like to swap the slide rule?

Later I could do the variometer trick (2 coils in parallel, one rotating inside the other, for a v large range of L) and see how far into the short wavebands we can get; but gang warily, the bard says, before saying something about cowering, deceptive and nervous mice - I've never been quite sure why.

Don't even THINK about the probable shape of the tuning response curve.

Slight change of subject: before calling it a day I tried getting the phase splitter going, but overheated a resistance I'd selected to "cover" for the RF and detector stages which haven't been started yet. That nostalgic smell of burning electricity, and those rapidly self-changing colour codes! Oh, deepjoy!

Might be slowing down a bit; friend staying a few days. Y'all know how it is. Grannie from Glasgow said "Guests are like fish - after 3 days they stink" - and she didn't have a 'fridge.

Bill
GM8APX, qthr=No 6, EH4 6JY==No Rectangulars=Cave Felem==Ikke Hawkering

Timeo Danaos et dona ferentes

Net-Tamer V 1.10 - Registered

Date: Sat, 28 Feb 1998 23:30:19 -0500
From: "Alexander N. Gerli" <angerli@connix.com>
To: Boatanchors Reflector <boatanchors@theporch.com>
Subject: WTB HRO-60
Message-ID: <34F8E45B.EAF9877B@connix.com>

Hi,

WTB HRO-60 with A, B, C, D coils (E and F maybe??), speaker and manual.

--
*_   _*_*   *_ _ _ _   _*_ _ / _*_   *_   *_ _ _ _   _*_   _***   _*_
_
Sandy Gerli, AC1Y
500 Country Club Road
Avon, CT 06001-2406
(860) 675-5566
E-Mail: angerli@connix.com

Life Member: ARRL, QCWA
Charter Member: Collins Collectors Association

REAL radios use firebottles
The rest of 'em use them li'l chips...

"It's better to remain silent and be thought a fool,
Than to speak up and remove all doubt!" - Mark Twain
*_   _*_*   *_ _ _ _   _*_ _ / _*_   *_   *_ _ _ _   _*_   _***   _*_
_

Date: Sun, 01 Mar 1998 04:32:22 +2400
From: Bill Jarvis <B.H.Jarvis@hw.ac.uk>
To: metzd <metzd@cfw.com>
Cc: boatanchors <boatanchors@theporch.com>
Subject: Re: Pot question?
Message-ID: <199803010432.EAA13131@punt1.hw.ac.uk>

On 1998-02-28 metzd@cfw.com said:
 me>Seems as how my last basic question was not laughed at, here goes
 me>another one. I need to replace a 2.5k pot. I have several 5K's in
 me>the junk box and even Mouser doesn't list any of the needed 2.5k
 me>types. So...... can one merely add a 5k resistor across the
 me>outside terminals and make the 5K pot look like a 2.5K? It would
 me>seem like this is too simple. Thanks for any insight. 73's
 me>dave

It,s not the same but the simple answer is it makes no difference in
most circuits.

Bill
GM8APX, qthr=No 6, EH4 6JY==No Rectangulars=Cave Felem==Ikke Hawkering

Mores puerorum se inter ludendum detegunt

Net-Tamer V 1.10 - Registered

Date: Sun, 01 Mar 1998 04:32:27 +2400
From: Bill Jarvis <B.H.Jarvis@hw.ac.uk>
To: DCrespy <DCrespy@aol.com>
Cc: boatanchors <boatanchors@theporch.com>
Subject: Re: bouncy drake meters
Message-ID: <199803010432.EAA13134@punt1.hw.ac.uk>

On 1998-02-28 DCrespy@aol.com said:
DC>X-Cc: boatanchors@sco.theporch.com
DC>X-Mailer: AOL 3.0 for Windows 95 sub 62
DC>X-Listprocessor-Version: 8.1 -- ListProcessor(tm) by CREN
DC>Status:
DC>John, about a week ago you wrote:
DC><<   I've recently finished restoring an older model TR4 with
DC>sucessful results, with one exception. The S-Meter, while
DC>functional, evidently has lost its dampening mechanism, allowing the
DC>meter to bounce hither and yon. >>
DC>I am catching up on e-mail, so this might be old news by now. I
DC>would look to see that the AGC is working correctly! This is
DC>pretty typical "AGC-off" behavior on some radios. I saw the posts
DC>on how to dampen the meter. I am sure they will work, but consider
DC>that they may just mask an electrical problem.
DC>Harry KG5LO
DC>Saline MI

Let's see. Basic AGC idea: get the IF final output and put it in series with a diode and an RC parallel combination. That gives you a DC voltage (DV to pedants) which is larger when the signal is larger. (I could say proportional to but I'm being a mathematical pedant.)

You usually apply this DC voltage to one or more control grids in earlier stages, USUALLY through the odd megohm, and usually minus to the grid, so that the grid goes more minus for bigger signals and that reduces the gain.

For which purpose, you need a variable-mu tube whose mutual conductance (Gm in mA/V in the tables) gets less when you make the grid more negative. So you get less amplification. (Tables usually show Gm for 0 V bias, at least my UK tables from 1930 onwards do it that way.)

The question is, how can this system fail? First thing I'd do is test the diode which gets you the AGC voltage. Don't know the rig but both solid-state (wash my mouth out) and thermionic diodes can get old and tired like me.

Thermionic diodes can get gassy (like me).

Bill
GM8APX, qthr=No 6, EH4 6JY==No Rectangulars=Cave Felem==Ikke Hawkering

Timeo Danaos et dona ferentes

Net-Tamer V 1.10 - Registered

Date: Sun, 01 Mar 1998 04:32:33 +2400
From: Bill Jarvis <B.H.Jarvis@hw.ac.uk>
To: dr <dr@cei.net>
Cc: boatanchors <boatanchors@theporch.com>
Subject: Re: 12AU7 testing
Message-ID: <199803010432.EAA13137@punt1.hw.ac.uk>

On 1998-03-01 dr@cei.net said:
 dr>Can someone post the TV-7 settings for the 12AU7 tube? Somehow my
 dr>data book is missing from my tester, and I need to test and find 20
 dr>good 12AU7's from my junk box pulls. I'm working (finally) on a
 dr>CU-168 antenna coupler. Someone removed all the tubes.
 dr>What did I do with that manual?
 dr>Don Reaves   WA5BBS
 dr>46 Arbor Oaks Drive   AMI 1027   CCA 378
 dr>N. Little Rock AR 72120   ARRL Life Member
 dr>dr@cei.net   R-390 list manager

Said to be = ECC82:

6V3 0A3 -OR- 12V6 0A15 (heaters in parallel or series);

100V 11mA8, grid -0 V, ra 6k2, gm 3.1, amp factor 19 -OR-
250 10.5   -8V5   7k7   2.2   17

Base B9A; pins 1 to 9: a1 g1 k1 h htap h a2 g2 k2 (I LIKE that!)

Does that answer the question?

Bill
GM8APX, qthr=No 6, EH4 6JY==No Rectangulars=Cave Felem==Ikke Hawkering

Naturam expellas furca, tamen usque recurret

Net-Tamer V 1.10 - Registered

Date: Sun, 01 Mar 1998 04:32:39 +2400
From: Bill Jarvis <B.H.Jarvis@hw.ac.uk>
To: gah <gah@koyote.com>
Cc: boatanchors <boatanchors@theporch.com>
Subject: Re: FS: Dynamotors
Message-ID: <199803010432.EAA13140@punt1.hw.ac.uk>

On 1998-03-01 gah@koyote.com said:
 ga>Ladies and Gents,
 ga>I have a small supply of AN/ARC-4X dynamotors that are a mix
 ga>of New Old Stock and Reconditioned Old Stock. These units are
 ga>supposed to work with AN/ARC-1, AN/ARC-4 & AN/ARC-12
 ga>radios. They are dual input 12 or 24VDC and are rated at output of
 ga>360 VDC @ 135mA. I also have new mating connectors for these
 ga>units which are 8 pin Cinch Jones blade type connectors. I will sell
 ga>these units at $20 each plus shipping from 75440 until they are
 ga>either gone, or no one else wants them. I can either ship without
 ga>opening the original packing and you take your chance, or I will
 ga>open and test them for you, whatever you prefer. I have opened
 ga>three and two were NOS and the other was reconditioned. All
 ga>three worked great. Please contact me via e-mail at
 ga>gah@koyote.com
 ga>73s George KC5WBV

Hi George,

I could use one of those and wonder whether you could surface mail (or something else cheap - no hurry!) - it's not important but if you are able to quote at no effort, I'd be interested. Also if you are interested in swap rather than cash I could send you a list, mainly tubes, some useful and not so common ones.

Bill
GM8APX, qthr=No 6, EH4 6JY==No Rectangulars=Cave Felem==Ikke Hawkering

Si domi sum, foris est animus; sin foris sum, animus est domi

Net-Tamer V 1.10 - Registered

Date: Sat, 28 Feb 1998 20:51:38 -0800
From: "Scott Alfter" <salfter@ibm.net>
To: "Boatanchors List" <boatanchors@theporch.com>, <metzd@cfw.com>
Subject: Re: Pot question?
Message-ID: <01bd44cd$b8798cc0$98cc48a6@internet.usinet.salfter>

>Seems as how my last basic question was not laughed at, here goes another
>one. I need to replace a 2.5k pot. I have several 5K's in the junk box and
>even Mouser doesn't list any of the needed 2.5k types. So...... can one
>merely add a 5k resistor across the outside terminals and make the 5K pot
>look like a 2.5K?

You can do that, but you'll lose any semblance of linearity. Remember the formula for parallel resistance:

r(1+2)=r(1)*r(2)/(r(1)+r(2))

Here's a table of what you'd get with this combo, with r(1) as the 5k variable and r(2) as a 5k fixed resistor (2 significant digits):

r(1)	r(1+2)	%max
0	0	0
500	460	18
1000	830	33
1500	1200	48
2000	1400	56
2500	1700	68
3000	1900	76
3500	2100	84
4000	2200	88
4500	2400	96
5000	2500	100

As you can see, you get half of maximum resistance in the first third of a rotation. Starting from zero, resistance rises quickly at first and then tapers off. If that's fine for your intended application, great. Usually it's not the desired behavior for a potentiometer, though.

Scott Alfter (salfter@delphi.com)

http://people.delphi.com/salfter

Date: Sat, 28 Feb 1998 21:54:26 -7900 (MST)
From: Henry van Cleef <vancleef@netcom.com>
To: n2bc@ibm.net
Cc: boatanchors@theporch.com
Subject: Re: Hickock 539A tube tester info needed
Message-ID: <199803010454.UAA17595@netcom17.netcom.com>

As Bill Coleman N2BC discourses
>
>
> **
> Subject: 6EA8, 6U8 and the Hickock 539A
>
> I have run into a puzzle... the pentode sections of the 6EA8 and 6U8 tubes
> here measure WEAK... around 1000 on the 6000 scale. The chart says they should
> indicate closer to 3000. The triode sections all test good.
>
> Are ALL my 6EA8 and 6U8 tubes weak in the pentode section?
>

Ain't tube testers great! (For selling tubes, that is).

These tubes are both triode-pentodes, and most of the trouble with
them is either noise or failure to operate (the triode) in oscillator
circuits.

If they pass the open-and-shorts tests, so far as I am concerned, the
only appropriate place to test them is in an operating circuit that
uses them. Never mind what any tube tester claims.

--
===
Hank van Cleef
===

Date: Sat, 28 Feb 1998 22:00:32 -7900 (MST)
From: Henry van Cleef <vancleef@netcom.com>
To: metzd@cfw.com
Cc: boatanchors@theporch.com
Subject: Re: Pot question?

Message-ID: <199803010500.VAA18199@netcom17.netcom.com>

As dave metz discourses
>
> Seems as how my last basic question was not laughed at, here goes another
> one. I need to replace a 2.5k pot. I have several 5K's in the junk box and
> even Mouser doesn't list any of the needed 2.5k types. So...... can one
> merely add a 5k resistor across the outside terminals and make the 5K pot
> look like a 2.5K? It would seem like this is too simple. Thanks for any insight.
>

First of all, analyze the circuit. You may be able to slap a 5K pot
in there and never know the difference. Most significant is whether
you need linear or logarithmic (audio) taper.

One way to cut down the resistance that works moderately well is to
hang a pair of 5K fixed resistors between the ends and the slider.
That will make it look like 2.5K end-to-end, and not screw up the
linearity of the taper too badly.

Where is the pot used?

--
===
Hank van Cleef
===

Date: Sun, 01 Mar 1998 00:56:08 -0500
From: Glenn Finerman <glennfin@mjet.com>
To: boatanchors@theporch.com
Subject: Re:Opening up "crystal cases"
Message-ID: <3.0.3.32.19980301005608.00694700@mjet.com>

Sandy wrote;

> The same stunt can be done with HC-6/U holders. If you have some
>solder wick, the "channel" that holds the solder can be cleaned out and
>the lid resoldered if desired. The use of a Dremel tool and a cutoff wheel
>destroys the "can" and you run a high risk of damaging the crystal and the
>supporting wires.

Interesting aproach, although I don't have a powerful enough
iron to do the trick. I tried it with my 40 watter and couldn't get the can
hot
enough to get the solder flowing. Since we only have two hands to perform

this operation, you have to put the iron down real fast then grab the can while it's still hot. You might be able to hold the leads with a small vise. Isn't there a possibility of damaging the crystal if you get it too hot? When I used the Dremel tool with the cutoff wheel to open up the "squat" HC6-U holders, I didn't care about destroying the can because the raw crystal was going to be installed inside of an FT-243 holder. There are no "supporting wires" in this type holder. It's just like an FT-243 with the xtal being held between two plates with a spring on top to apply pressure to the "sandwich" Removed a whole bunch of them with the Dremel and didn't harm any of the crystals.

I guess the colorburst crystals are different in that they have lead wires soldered directly to the crystal surface? Not sure about that but I'll find out soon!. I'll try and borrow a "stained glass" type soldering iron and see how that works.

Thanks for the info Sandy. See you on the QRG....3579 - (3580?)

Date: Sun, 01 Mar 1998 00:59:03 -0500
From: Glenn Finerman <glennfin@mjet.com>
To: boatanchors@theporch.com
Cc: glowbugs-digest@www.atl.org
Subject: Heavy duty bandswitch?
Message-ID: <3.0.3.32.19980301005903.006a0704@mjet.com>

Hello fellow anchorites and glowbuggies...

Does anybody have an extra single pole, ceramic 6, 7 or 8 position heavy duty "bandswitch" they would be willing to part with? please? I need one for a tube amp project I'm working on. Will pay cash or exchange parts / tubes. What you need??

Thanks folks!!

73.....................Glenn NA2DX   (formerly N2BJG)
glennfin@mjet.com

-------------------- WANTED -----------------------
CW Filter for Collins 75S-3B
Drake 2C with 2CQ
R-648/ARR-41 Receiver

```
                ART-13
     Pierce Simpson "Simba SSB" CB radio,
            Browning Golden Eagle MK II



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End of BOATANCHORS Digest 1945
******************************

>From ???@??? Mon Mar 02 01:27:36 1998
Message-Id: <199803011918.NAA09880@sco.theporch.com>
Date: Sun,  1 Mar 1998 13:18:14 CST
Subject: BOATANCHORS digest 1946

                  BOATANCHORS Digest 1946

Topics covered in this issue include:

  1) Koilz and Litzendraht
     by Henry van Cleef <vancleef@netcom.com>
  2) Re: Eico 369 Sweep Generator FS
     by "Arden Allen" <aallen@sirius.com>
  3) Pot question/response to Hank's question
     by dave metz <metzd@cfw.com>
  4) New Digital Display Unit
     by Sandra L Knepper <slkst29+@pitt.edu>
  5) From: Bill Jarvis <B.H.Jarvis@hw.ac.uk>
     by Bill Jarvis <B.H.Jarvis@hw.ac.uk>
  6) HELP !!
     by Terry Muncey <Terry@electrosys.com>
  7) Re: Pot question?
     by Bill Jarvis <B.H.Jarvis@hw.ac.uk>
  8) Re: Hickock 539A tube tester info needed
     by Bill Jarvis <B.H.Jarvis@hw.ac.uk>
  9) Re: bouncy drake meters
     by DCrespy <DCrespy@aol.com>
 10) Dalton, Ga h'fest Nat'l revelation.
     by polepeeg@aa4rm.radio.org (BA x-actions hr)
 11) National CRO O'scope
     by "Lawrence R. Ware" <lrware@pipeline.com>
 12) Deutsch Connectors
     by ALanger394 <ALanger394@aol.com>
 13) TBS owners sound off!!!
     by polepeeg@aa4rm.radio.org (BA x-actions hr)
 14) Mystery Radio (Federal ??)
     by provero@connix.com
```

15) Re: Replacing Line cords on boatanchors
by Bob/WB0AUQ <brainbol@lawrence.ks.us>
16) Re:Opening up "crystal cases"
by Bob Roehrig <broehrig@admin.aurora.edu>
17) Re: Replacing Line cords on boatanchors
by Henry van Cleef <vancleef@netcom.com>
18) ADMINISTRIVIA: Buying and Selling Guidelines
by listown@jackatak.theporch.com (Mail List Owner)
19) WTD: Capacitor 2-6 mmf RF Trimmer
by "Walter Fairclough" <wfairclo@netcom.ca>
20) Embossed panels
by maccary@on-ramp.ior.com
21) Re: Replacing Line cords on boatanchors
by "Arden Allen" <aallen@sirius.com>
22) HQ-180AX Crystal deck schematic needed
by djhutch@concentric.net
23) Squires Sanders FM Alert Info Needed
by don merz <71333.144@compuserve.com>
24) reply to line cord postings
by "Paul Bernhard Sr." <w2tu@email.msn.com>
25) 20s rehash: the other end of the scale
by Bill Jarvis <B.H.Jarvis@hw.ac.uk>

Date: Sat, 28 Feb 1998 23:00:42 -7900 (MST)
From: Henry van Cleef <vancleef@netcom.com>
To: boatanchors@theporch.com
Subject: Koilz and Litzendraht
Message-ID: <199803010600.WAA21636@netcom17.netcom.com>

Litzendraht: the stuff you love to hate.

I've got some first IF coils from an HQ-145 here, and decided to check them out before looking at the radio, which has supposedly inoperating coils installed. These are odd-balls: each transformer has a 455 Khz (resonates with 100 pf) and a 3035 Khz. (resonates with 22 pf) winding plus a short link coil. In operation, two of these are connected together thru their link coils, which are untuned.

I made some measurements with the Boonton 250A RX bridge and 260A Q-meter. One coil set, which was still mounted on its base, with little capacitors in the base (sheets of mica plus some conductive stuff) showed very low Q on both sections---I could hardly find a peak on the Q meter, and the RX bridge confirmed this with very low resistance readings. That one got disassembled from the base (a pesty job). The other one was a loose coil. Cleaned both of them up, re-caught the ends of windings with some Q-dope, and restripped and tinned the coil ends. The only way I know of to deal with Litzendraht successfully is with GC's "Strip X," which is a very nasty chemical product. I also decided to take readings with the tuning slugs removed, and see whether to set them up to tune with slugs, or add more capacitance outside the cans when done.

The 455 coils gave me Q's of 105 and 110 with no slugs, and required 146 and 154 pf. to resonate. The 3035 coils gave Q of 67 and 68 with no slugs, and required 44 and 43.5 pf. to resonate at 3000 Khz. So far sounds good, doesn't it.

I tried the first transformer on the 250A. At 3000 Khz., I got an effective resistance of about 28K. But moving it up to 3100 gave me an effective resistance of 20K. That's a huge change for only 100 Khz. change. The second transformer showed about 32K at 3000 Khz, and very little slope to this, even going to 3500 Khz. Some more checking showed the first transformer wandered all over the lot for very little frequency change up or down. Not a good sign.

I gave both coils an hour's bake at 95C (200F). These coils were originally made by the varnish dip and bake finish step, which leaves plenty of voids in the coating. The process is described in Langford Smith, "Radiotron Designer's Handbook," 4th edition.

I was a bit surprised at the differences in measurements after the coils had cooled.

The 455 sections now had Q of 125, and resonated on 144 and 148 pf. The 3035 sections now showed no-slug resistance of 30K rock solid, with no real slope on frequency change.

Putting the slugs in the 455 coils and adjusting to resonate at 100 pf., which is the spec fixed capacitance, I got Q readings of 160 on both coils. Setting the RX bridge up as close to 3035 as I could, and adjusting the slugs to resonate on 20 pf. (close to spec), I got a solid 41K indicated resistance. Obviously, baking these old coils made a big difference. Reason for using the Q meter on the 455 coils is that the RX bridge only goes down to 500 Khz, and the effective resistance of Q>100 is too close to infinity for the bridge to resolve.

Reason for using the RX bridge on the 3035 coils was that the Q meter will not resonate coils with below 30 pf. across them, and that is an inaccurate point because of the effects of self-capacitance. Lowering the Q meter frequency to 2500 Khz. would allow more accurate measurements, but at a lower frequency, when the real question I had was the effects of the slug on Q at 3035. The fact that the slugs increase Q in both cases (higher effective resistance=higher Q) suggest leaving them in place, although the 3035 coils may need 27 pf. to give good adjustment range. I had to pick slugs to get both of them to go below 20 pf. for resonance at 3035.

All of this is very fussy work. It's been a lot of years since I played with coils like this, and a real trip down memory lane. But then I did this type of work for several years, and got some feel for the tricks that coils and the instrumentation can play. These particular coils are wound on 1/4 inch tubes, not terribly conducive to high Q and so forth, and quite fussy to set up for manufacture. Reason for questioning the value of slugs is that this style of manufacture is definitely "low cost"---trimmer caps cost money.

Now I'll have to check out the transformers in the set. But at least I now have a set of spare coils if needed, as well as some idea of what the ones in the set should look like.

--

===

Hank van Cleef

===

Date: Sat, 28 Feb 1998 22:17:29 -0800
From: "Arden Allen" <aallen@sirius.com>
To: "Old Tube Radios" <boatanchors@theporch.com>,
        "Allen Tucholski" <allent@en.com>
Subject: Re: Eico 369 Sweep Generator FS
Message-ID: <199803010617.WAA20156@mail3.sirius.com>

Hi again Allen;

The Eico 369, like most of its ilk, was designed primarily for TV IF and front end alignment and could be used for FM receivers and TV/FM Antenna booster amps among other things. It covers about 5 to 600 MHz. It's not particularly well suited to narrow passband HF receiver alignments but it can be made to do some alignment jobs. I have a Paco generator of the same type as the Eico which I have heavily modified to make it more suitable for HF work. The Eico, like all the rest of the cheapy TV sweepers, has only one sweep frequency, 60 Hz, obtained from a power transformer winding. The RF output is switched off for one half of the sweep cycle so that the 'scope display shows a no signal baseline trace in addition to the response curve trace of the circuit being aligned. For HF receiver IF alignments it is necessary to run the sweeper full time so that phase shift problems which distort the response curve can be detected. Phase shift will cause the up and down sweeps of the sweep caycle to not coincide, i. e., the up and down traces won't perfectly overlap. For sweeping crystal filters you have to slow the sweep down to 15 Hz or slower to avoid delay distortion caused by the high Q of the crystal.

Sweep alignment gives you a visual indication of what's going on throughout the entire passband of the circuit you are aligning. It readily shows up cantakerous (unstable) IF amplifiers and will give you a good qualitative means of verifying that you have the "fix" in.

The way I recommend learning sweep alignment is to get a thorough understanding of how the sweeper works by studying the equipment manual and setting up an alignment situation with a simple receiver. Observing the scope trace is truly a situation where one picture is worth 1000 BA postings.

Give your loved ones Gummy Bears.
Arden Allen KB6NAX Vallejo, CA aallen@sirius.com

Date: Sun, 01 Mar 1998 08:52:30 -0500
From: dave metz <metzd@cfw.com>
To: <boatanchors@theporch.com>
Subject: Pot question/response to Hank's question
Message-ID: <2.2.32.19980301135230.007109c0@milo.cfw.com>

>One way to cut down the resistance that works moderately well is to
>hang a pair of 5K fixed resistors between the ends and the slider.
>That will make it look like 2.5K end-to-end, and not screw up the
>linearity of the taper too badly.
>
>Where is the pot used?

To answer Hank's question.

The pot is the audio gain of the R390A. I even tried a 2K last night after I made the post and it seems to not reduce the audio at minimum levels enough to silence the speaker, and the 5K used without tricking it seems to not have enough audio gain.. So, next I will try the 2.5K's to the slider on the 5K as suggested.

To Hank and all others who find the time to explain solutions to such basic questions, I sure feel lucky that this group exists.

73's
dave

Date: Sun, 1 Mar 1998 09:14:02 -0500 (EST)
From: Sandra L Knepper <slkst29+@pitt.edu>
To: boatanchors@theporch.com
Subject: New Digital Display Unit
Message-ID: <Pine.GSO.3.96L.980301090800.12486B-100000@unixs3.cis.pitt.edu>

If anyone is contemplating adding a digital display to their Collins or any other older units with digital displays, check out the homepage of ALMOST ALL DIGITAL ELECTRONICS at www.aade.com/dfd.htm#radios to see the newest digital display unit that Neil is now introducing - really fantastic.

I have assembled one of his units and I can tell you that it works better than any other digital display that I currently own. How he can come up with such units at those prices is appreciated by those on a limited budget.

Thought you would like to know.

Dave, W3BJZ
Publisher of the Collins Journal

Date: Sun, 01 Mar 1998 14:20:17 +2400
From: Bill Jarvis <B.H.Jarvis@hw.ac.uk>
To: boatanchors <boatanchors@theporch.com>
Cc: "j.m.osborne" <j.m.osborne@btinternet.com>
Subject: From: Bill Jarvis <B.H.Jarvis@hw.ac.uk>
Message-ID: <199803011420.OAA13792@punt1.hw.ac.uk>

Subject: Mechanism of valve decay
Now that I'm beginning to appreciate what a clever and detailed test my 1940s AVO tester performs, I have a question about ways in which tubes can begin to fail.
I'm not talking about realignment of grids due to dropping, overheating causing metal vapour to fly around and land in the wrong place, reverse emission from red hot anodes causing electron bombardment of the cathode coating when someone applies AC, etc.
The detail which puzzles me for the moment is in the instruction to check for leakage by connecting 230 V AC, through a high resistance and

a neon glow tube, to the anode pin, and check using every other pin in turn.
Then, if the valve has other electrodes "to which high voltages are normally applied", underlined (by me!), repeat this test to all other pins.
WHY should the "high voltage" electrodes be more susceptible to leakage than the others? Why is a control grid to cathode leak demmed unlikely?
As to testing gas filled valves (anyone want any? list on request) this leakage test is just fine; and makes the electrode structure clearly visible.
Bill

The tester seems to be closer to 1936 and still useful...many thanks all who helped with the CORRECT procedure!

GM8APX, qthr=No 6, EH4 6JY==No Rectangulars=Cave Felem==Ikke Hawkering
Quadrupedante putrem sonitu quatit ungula campum
Net-Tamer V 1.10 - Registered

Date: Sun, 1 Mar 1998 08:46:38 -0600
From: Terry Muncey <Terry@electrosys.com>
To: "'boatanchors@theporch.com'" <boatanchors@theporch.com>
Subject: HELP !!
Message-ID:
<c=US%a=_ecs%p=ElectroSys%l=WEBMASTER-980301144638Z-32@webmaster.eletrosys.com>

Still looking for copies or originals of Howard Sams Dial Stringing Books. There are 7 books in all in this series. I have all but DC-3 and DC-7. Please look in your library to see if you might have one that I could copy.

Thank you.

Terry Muncey - WB5OAS
Radio Era Archives

Date: Sun, 01 Mar 1998 08:21:43 +2400
From: Bill Jarvis <B.H.Jarvis@hw.ac.uk>
To: salfter <salfter@ibm.net>
Cc: boatanchors <boatanchors@theporch.com>
Subject: Re: Pot question?
Message-ID: <199803010821.IAA13271@punt1.hw.ac.uk>

On 1998-03-01 salfter@ibm.net said:
 sa>>another one. I need to replace a 2.5k pot. I have several 5K's in
snip
 sa>Here's a table of what you'd get with this combo, with r(1) as the
snip
 sa>As you can see, you get half of maximum resistance in the first
 sa>third of a rotation. Starting from zero, resistance rises quickly
 sa>at first and then tapers off. If that's fine for your intended
Thanks OM; I had intended to start working that out for myself as a
matter of interest. Always gratifying when someone else takes the
trouble and shares the result.

Bill
GM8APX, qthr=No 6, EH4 6JY==No Rectangulars=Cave Felem==Ikke Hawkering

Iti sapis potandi tisa bigone

Net-Tamer V 1.10 - Registered

Date: Sun, 01 Mar 1998 08:21:37 +2400
From: Bill Jarvis <B.H.Jarvis@hw.ac.uk>
To: vancleef <vancleef@netcom.com>
Cc: boatanchors <boatanchors@theporch.com>
Subject: Re: Hickock 539A tube tester info needed
Message-ID: <199803010821.IAA13268@punt1.hw.ac.uk>

On 1998-03-01 vancleef@netcom.com said:
 va>X-Cc: boatanchors@theporch.com
 va>X-Mailer: ELM [version 2.4 PL25]
 va>X-Listprocessor-Version: 8.1 -- ListProcessor(tm) by CREN
 va>Status:
 va>As Bill Coleman N2BC discourses
 va>>
 va>***
 va>********* >
 va>> I have run into a puzzle... the pentode sections of the 6EA8 and
 va>>6U8 tubes here measure WEAK... around 1000 on the 6000 scale.
 va>>The chart says they should indicate closer to 3000. The triode
 va>sections all test good. >

I've noticed this too and what puzzles me is why some vintage valves
should be GOOD. Did the mixture for the glass vary? I suppose it must
have.

And there are other chemicals inside, including elements (metals), which evidently can react with the few hundred million molecules of gas left it the best vacuum.

So why do we have any GOOD valves left? I'm serious!

Bill
GM8APX, qthr=No 6, EH4 6JY==No Rectangulars=Cave Felem==Ikke Hawkering

Laborant montes, parturiunt haec mus

Net-Tamer V 1.10 - Registered

Date: Sun, 1 Mar 1998 06:26:12 EST
From: DCrespy <DCrespy@aol.com>
To: boatanchors@sco.theporch.com
Cc: B.H.Jarvis@hw.ac.uk
Subject: Re: bouncy drake meters
Message-ID: <656eaa08.34f945e1@aol.com>

Before I get too badly flamed on this, let me make a correction.. I had written:

<< John, about a week ago you wrote:
I've recently finished restoring an older model TR4 with sucessful results, with one exception. The S-Meter, while functional, evidently has lost its dampening mechanism, allowing the meter to bounce hither and yon. >>
I am catching up on e-mail, so this might be old news by now. I would look to see that the AGC is working correctly! This is pretty typical "AGC-off" behavior on some radios. I saw the posts on how to dampen the meter. I am sure they will work, but consider that they may just mask an electrical problem. >>

What I should have written was NOT "AGC-off"... BUT "AGC-fast". What John may be seeing is the impact of AGC time constant. I would look for a bad resistor or capacitor in the circuit that determines this constant.

I do have a couple of radios that have S-meters that work without AGC.. but that is not the point.

Harry KG5LO
Saline MI

Date: Sun, 1 Mar 1998 06:52:15 -0500
From: polepeeg@aa4rm.radio.org (BA x-actions hr)
To: lrware@pipeline.com
Cc: boatanchors@theporch.com
Subject: Dalton, Ga h'fest Nat'l revelation.
Message-ID: <199803011152.GAA11231@aa4rm>

Larry I was hawking a Eico 753 there yesterday & a fella named Kevin Wood came up & told me "You know that's a National NCX-3, don't you?"

My response was "duuuuh, you know there is a similarity."

Well the thing IS an NCX-3. Seems National licensed Eico to private label kits as their own.

But I bet everyone knows that.

Now the rest of the story. My tatty example didn't sell at $81 asked and I (& WB4MNF & W2CQH) were folding the tent to leave when in comes a Taurus wagon with an as-new 753 & mic. in it! $75!!

My jaw dropped, I agonized, then 10 min. later there comes Kevin who bought it and a AK speaker for $100. Glad it found a good home.

One remarkable note was Kevin'd never seen a Eico PS for a 753 & was tempted to buy mine just for that. Well guess what? Now he's got an as-new PS... to go with the almost non-existant Eico 753 keyer accsy he's got at home.

Marty

Date: Sun, 01 Mar 1998 09:45:56 +0000
From: "Lawrence R. Ware" <lrware@pipeline.com>
To: boatanchors@sco.theporch.com, national@qth.net
Subject: National CRO O'scope
Message-ID: <3.0.5.32.19980301094556.007fbdc0@pop.pipeline.com>

Good morning folks!
Does anyone have the manual/op instructions for an old
National type "CRO" monitor scope?

One followed me home a while back and is finally getting close to the top of the resurection queue here... :-)

This one will take a lot of work, but does appear to be
mostly complete.
I'm not even sure yet what it's good for... :-)

Thanks,
-Larry

# Larry Ware
# Admirer, Collector, Restorer of National Radio Company
# receivers and other artifacts.
# Orlando, Florida
# lrware@pipeline.com

Date: Sun, 1 Mar 1998 10:18:51 EST
From: ALanger394 <ALanger394@aol.com>
To: vss@mlist.access.digex.net
Cc: boatanchors@theporch.com
Subject: Deutsch Connectors
Message-ID: <e8ac358b.34f97c5d@aol.com>

Hi All

I am trying to find a source for Circular Multipin Connectors made by the following manufacturer

Deutsch Company
Banning
California

I am after some fee plugs and sockets 3, 10 ,12 ,16 , way

I have all the part numbers for the chassis connectors on the equipment so it should be possible to come up with the mating connector number

The connectors are finished in a silver colour with an orange/red base to the pins and are a push lock fit

The connectors are used on Watkins Johnson Receivers and accessories and on Avantek amplifier modules

I have not found a supplier in the UK

If any one has used ones that would be fine or has some one got a local dealer or stockist

Help Greatly Appreciated

Regards

Allan

Date: Sun, 1 Mar 1998 10:53:26 -0500
From: polepeeg@aa4rm.radio.org (BA x-actions hr)
To: boatanchors@theporch.com
Subject: TBS owners sound off!!!
Message-ID: <199803011553.KAA11712@aa4rm>

Are there any out there?

Boatanchors since 10-97 shows only one transaction & that was Jerry Proc's this week on one's appearance in a '46 HMS Haida foto

The TBS is not Turner Broadcasting but a huge 60-80mcs pioneer VHF set using 808s for final & modulators. Crystal control.

RX uses 956 acorn RF then 6D6 mixer! Mostly std. based tubes with an octal or two. Probably a '36-'37 design.

Amazing rig & explains why so many 808 tubes found their way to surplus.

See Jerry's one at -

   http://webhome.idirect.com/~jproc/1946/mainwt.html

And write if you're an owner - cause I've a surprise in the form of a manual for a TBS-7.

  Thanks,

    Marty

Date: Sun, 01 Mar 98 10:52:11 -0500
From: provero@connix.com
To: boatanchors@theporch.com
Subject: Mystery Radio (Federal ??)

Message-ID: <199803011554.KAA00382@comet.connix.com>

Not too long ago another list member asked for my help
in identifying a radio. I *was* almost certain it was
by Federal, but couldn't find any documentation or details.

The radio, which is green, runs on 28V DC, covers 2.0-32 MHz with analog
tuning, and has AM/CW/FSK modes can be viewed
at:

    http://www.connix.com/~provero/rovero.htm

Thanks in advance,

```
P.J. "Josh" Rovero      home:   provero@connix.com
Meteorologist          radio:   KK1D
Oceanographer           work:   rovero@sonalysts.com
Curmudgeon-at-Large      web:   http://www.connix.com/~provero/
```

Date: Sun, 01 Mar 1998 10:01:54 -0600
From: Bob/WB0AUQ <brainbol@lawrence.ks.us>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Replacing Line cords on boatanchors
Message-ID: <34F98672.356E@lawrence.ks.us>

My first impression on the original question was
Why not just figure it out yourself?
Probe the outlet with an ac voltmeter and you will see
115 to 130 volts (whatever your power company provides)
between the ground and one of the the slots. This is the
hot side. Verify that you have similar volts between this
slot and the other, which is the neutral. Just to be safe,
probe the neutral to ground, might see some static volts here
but definitely not 115-130. Then position the cord plug, without
plugging in, in alignment with the outlet to determine which of the
plug blades is going to be the hot one. An ohm meter from this blade
to wires on other end will tell you which is the hot one.   One could
VERY CAREFULLY isolate the cord wires, plug in the cord and probe
the wires for voltage. I like Bobbi's blue-cool idea to remember
the neutral, but it never hurts to verify wiring, even at a lowly
120 volts ac.

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73,

Bob/WB0AUQ          AMI #213      FISTS #1905
emailto:brainbol@lawrence.ks.us

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Date: Sun, 1 Mar 1998 10:16:55 -0600 (CST)
From: Bob Roehrig <broehrig@admin.aurora.edu>
To: Glenn Finerman <glennfin@mjet.com>
Cc: Old Tube Radios <boatanchors@theporch.com>
Subject: Re:Opening up "crystal cases"
Message-ID: <Pine.ULT.3.96.980301101521.24090A-100000@admin.aurora.edu>

On Sun, 1 Mar 1998, Glenn Finerman wrote:

> Interesting aproach, although I don't have a powerful enough
> iron to do the trick. I tried it with my 40 watter and couldn't get the can
> hot enough to get the solder flowing.

To open the HC6 xtal cans, I hold the pins with one set of pliers and the
can with another. I hold the xtal over a butane torch, aimed mostly at the
base - it pulls apart rather quickly.

                    "Nostalgia is a thing of the past"
        E-mail broehrig@admin.aurora.edu           73 de Bob, K9EUI
            CIS: Data / Telecom   Aurora University, Aurora, IL
                      630-844-4898  Fax 630-844-5530


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Date: Sun, 1 Mar 1998 09:38:16 -0700 (MST)
From: Henry van Cleef <vancleef@netcom.com>
To: brainbol@lawrence.ks.us
Cc: boatanchors@theporch.com
Subject: Re: Replacing Line cords on boatanchors
Message-ID: <199803011638.IAA25949@netcom6.netcom.com>

As Bob/WB0AUQ discourses
>
> My first impression on the original question was
> Why not just figure it out yourself?
> Probe the outlet with an ac voltmeter and you will see
> 115 to 130 volts (whatever your power company provides)
> between the ground and one of the the slots.  This is the
> hot side.  Verify that you have similar volts between this
> slot and the other, which is the neutral.  Just to be safe,
```

> probe the neutral to ground, might see some static volts here
> but definitely not 115-130.
>

There's a nice shortcut to this. Snapit sells a 3-led little plug-in tester to plug into US 3-wire receptacles. There is a legend molded into the thing that tells which leds light up under which conditions. You get "all green" if the receptacle is wired properly. I always use mine (which I have had for years) on any strange receptacles I plan to use.

While I got mine at a "real" hardware store in the 70's, I'm not sure where you'd get one now. Would suggest an electrical supply house.

Some notes:

1. Never ever connect neutral to ground inside the equipment. That's a violation of all sorts of standards. The neutral and the ground should be isolated at low frequency/DC. AC ground at RF (a .01 cap, as used in the better AA5 designs) is OK.

2. There is a rather persistent myth about "line voltage inflation" in the US. Three standard voltages were used in AC electrifications in the 20's and 30's, 115, 120 and 125 VAC RMS. 110 volts was used in the Edison DC distributions, which continued in use in NYC (Manhattan) through the 1950's, and was also used for a long time in several other cities. The RMA's choice of "117.5 volts" as a design center includes the NYC 110 volt DC system. Actually, the design center for the AA5 is 119.8 volts.

3. Measuring line voltages with typical multimeters can be wildly inaccurate. A multimeter that has been used for a while can't really be trusted closer than 5% of full scale on AC. That is 7.5 volts on a 150 volt scale, and I'm not too sure I'd even want to trust it to be that close. Waveshape (note all the modern stuff that uses triacs and similar devices to grab only part of the wave) and power factor have a serious effect on multimeter accuracy.

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Hank van Cleef

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Date: Sun, 1 Mar 98 11:15:01 CST
From: listown@jackatak.theporch.com (Mail List Owner)

To: boatanchors@sco.theporch.com
Subject: ADMINISTRIVIA: Buying and Selling Guidelines
Message-ID: <199803011715.LAA06369@jackatak.theporch.com>

Gang-

This periodic posting is intended as a gentle nudge and suggestion which should improve the quality of posts to the BoatAnchors list, and maintain our excellent (and high) signal to noise ratio...

The list culture has developed to include "for sale" and "wanted" posts. Originally, all buying and selling traffic was focused on finding parts to complete a restoration. As the list has evolved, there has been an increase in buying and selling activity, which may not be all bad.

There is, however, a real need to observe certain conventions, lest this otherwise benign activity turn into a real disturbance to the real purpose of the list: discussions of radio equipment using vaccuum tubes, including the life and times of the designers and users of such gear.

Please observe these guidelines:

1) LIMIT the frequency of for sale postings... once a month is a good starting point

2) DO NOT post endless "xxx is sold" to the entire list... you offered it for sale, and it is not considerate of list resources (which include the time and energy of the other list members) to burden the list with these senseless notices. Use direct email to those who responded, or, if you don't want to answer them personally, just don't use the list to advertise them for sale!

3) AVOID even the mere faint appearance that you are posting items for sale as a regular adjunct to your business dealings. This has become more of a problem lately with some long lists showing up regularly on the main list, or with dealers who appear to be using the list for their personal advertising advantage. Failure to observe these basics *will* result in banishment from the list -- just don't do it! When even a shadow of doubt creeps in, read the "Welcome" message again... it spells it out!

4) DO be considerate of those on the list in your for sale or wanted postings. Keep them short, infrequent, and ONLY include items specifically appropriate to the list -- NO solid state gear is obvious, but try to avoid pushing the envelope in any area.

5) LONG lists and estate offerings should be sent to me at:

listown@jackatak.theporch.com
so they may be uploaded to the archives for email or ftp retrieval.
(We are hoping to have a web page up in the future for these files.)

Thanks for your understanding and help in making the boatanchors list
have the highest signal to noise on the InterNet.

--

73
Jack, W4KH/Mobile - - - BoatAnchor Mailing List Owner - - -
listown@jackatak.theporch.com - "Plus ca change, plus c'est la meme chose"

Date: Sun, 1 Mar 1998 12:32:19 -0500
From: "Walter Fairclough" <wfairclo@netcom.ca>
To: <boatanchors@theporch.com>
Subject: WTD: Capacitor 2-6 mmf RF Trimmer
Message-ID: <00f301bd4537$fd8c7380$a55ab5cf@wfairclo.netcom.ca>

I am badly in need of the C3 2-6 mmf ceramic R-F trimmer capacitor (Hallicrafters part # 44B179). There are several in the SX-42 (C-3, 4, 6, 18, 19, 20, 21 32, 33, 34 & 35. One will be OK, 2 of them even better.

Walter

wfairclo@netcom.ca

Date: Sun, 01 Mar 1998 10:11:50
From: maccary@on-ramp.ior.com
To: boatanchors@sco.theporch.com
Subject: Embossed panels
Message-ID: <3.0.3.16.19980301101150.0a37081c@on-ramp.ior.com>

I am bringing back to life a 1925 three-dialer radio and have gotten this five-tube 01A set playing again. My serious problem is how to refinish the front panel. This set must have been in the cellar where water drippied on it or the resident tom cat sprayed. I removed the panel and discovered that it is in two sheets, an inner one of steel and an outer one of copper. I removed what little remained of the finish on the copper sheet and it cleaned up nicely.

The sheet measures 7x24 inches. The lettering and dial markers are embossed onto this sheet and stick up slightly above the sheet. The copper sheet measures .019 inch thick and the letters increase this to .020 inch. My problem is how to apply a finish (paint or stain) to the background copper and keep it off the lettering (only .001 high), or alternatively apply a finish and then remove it from the letters. I've tried both methods with no success so far.

Any suggestions out there?
Mac

Date: Sun, 1 Mar 1998 10:10:12 -0800
From: "Arden Allen" <aallen@sirius.com>
To: "Old Tube Radios" <boatanchors@theporch.com>, <vancleef@netcom.com>
Subject: Re: Replacing Line cords on boatanchors
Message-ID: <199803011812.KAA21094@mail2.sirius.com>

Henry mentions capacitors for RF grounding:

> 1. Never ever connect neutral to ground inside the equipment. That's
> a violation of all sorts of standards. The neutral and the ground
> should be isolated at low frequency/DC. AC ground at RF (a .01 cap,
> as used in the better AA5 designs) is OK.

Now we have another tiger by the tail. Because of the proliferation of digital noise makers, grandiose jury awards and international trade safety standards, the capacitor manufacturers have developed "safety" capacitors for accross line (LINE to NEUTRAL) and line to ground (EARTH) applications. You can spot these capacitors by their voltage labeling; "125 VAC" for 120 volt lines and "250VAC" for 240 volt lines. That is not the voltage withstand capability of these capacitors however. These capacitors are designed to withstand repeated application of 1.5, 1.75, 2.5 and higher peak KILOVOLTS, depending on the particular technical standards units are designed for. That means they will actually withstand considerably higher insulation breakdown test voltages (5-10KV). The reason these capacitors are designed to withstand these high peak voltages is so that they can handle high voltage spikes cause by switching inductive loads on and off; the ac induction motor being the most common villain in the household. In addition these capacitors are designed to, should they short, fail in a benign matter so that they won't cause a fire. You can salvage these capacitors out of junk computer power supplies if you're so inclined.

These are the types of capacitors I use to replace line filter capacitors. I prefer new ones which are easily obtainable through Newark, Digi-Key, etc. They are not the cheapest but they are the best security against "hot chassis" malady.

Give your loved ones Gummy Bears.
Arden Allen KB6NAX Vallejo, CA aallen@sirius.com

Date: Sun, 01 Mar 1998 13:36:19 -0500
From: djhutch@concentric.net
To: boatanchors@theporch.com
Subject: HQ-180AX Crystal deck schematic needed
Message-ID: <34F9AAA2.A9727FF5@concentric.net>

I am looking for a schematic of the crystal deck that replaced the clock on the Hammarland HQ-180. A template of the switch panel would be a bonus!

73's

Dave K9HT

Date: Sun, 1 Mar 1998 13:51:58 -0500
From: don merz <71333.144@compuserve.com>
To: boatanchors@theporch.com
Subject: Squires Sanders FM Alert Info Needed
Message-ID: <199803011355_MC2-3510-C82C@compuserve.com>

Hi: Anybody have any info on the Squires-Sanders "FM Alert" radios. These are typical VHF monitoring radios. One covers 50-50mhz while the other does 152-174 or so. I have the operating manuals but no service info. Any help appreciated.
73, Don

Date: Sun, 1 Mar 1998 14:04:41 -0500
From: "Paul Bernhard Sr." <w2tu@email.msn.com>
To: <boatanchors@theporch.com>
Subject: reply to line cord postings
Message-ID: <0dcf64505190138UPIMSSMTPUSR01@email.msn.com>

Quick answers to a not so quick area;
For Bobbi;

While the folks might be confused by the names, if that is their problem they might be well put to stay away from energized circuits. There is a definite difference in neutral, ground, grounding and grounded.

We like to read things into any semi-official document but the only thing the NEC has in mind is the safety of people and eqjuipment. The other colors are for the most part determined by plant specs, local codes etc. Your work situation shows the separation of systems by different colors. (Code required) colors are not specified other that white & green as we mentioned.

Home systems (120/240,1ph,3w) are generally colored like that because that is the cable available.

In the 4wire Yconn 3ph system the fourth wire would be the neutral.

In the 3wire Delta conn. 3ph system you may have a grounded "B" phase or not depending on system requirements. If grounded it would be marked with a white tape.

Older plugs would be same size prongs, newer standards require different width blades.

For Gummy Bears;

Grounding requirements now need an auxiliary ground along with the standard ones you mention. This came about due to the prolifertion of plastic piping used by the utilities. Two 8' ground rods are a minimum now.

Please don't combine neutral and white (grounded cond) not always true. I had a fellow install an aircond in an office and connect his 120 volt machine to what he thought was a hot wire and neutral (white tape). It ended up that it was across a delta with a grounded phase and the 480 volts fried his equipment!

For Bill;

GFI's are wonderful pieces of saftey equipment and glad you are making use of them. They are now required for all countertop kitchen receptacles. Just remember they areovercurrent protection. Good luck

Thanks to all for listening.

Paul   w2tu@msn.com

Date: Sun, 01 Mar 1998 19:13:33 +2400
From: Bill Jarvis <B.H.Jarvis@hw.ac.uk>
To: greid <greid@easynet.co.uk>, rod <rod@scotnet.co.uk>,
        george <george@scotnet.co.uk>
Cc: boatanchors <boatanchors@theporch.com>,
        "j.m.osborne" <j.m.osborne@btinternet.com>
Subject: 20s rehash: the other end of the scale

Message-ID: <199803011913.TAA14692@punt1.hw.ac.uk>

Whilst messing away with this rather large project, I'm wondering whether to have a shot at a minimalist tube AM BC Rx.

Question: I have a few electrometer valves, typ. Va = 9, Ia = 0.1 mA; or a similar looking tetrode with Ia = 10 microamperes.

Anyone know what happens if you try to use electrometer valves (intended for DC no doubt) at long or even medium wavelength? Maybe the inter-electrodes Cs are high; but I doubt it.

gms are quoted as .08 mA/V (triode) and .01 mA/V (tetrode) so it might be nigh on impossible to get any amplification at RF.

Never mind; I also have a few of 2e13, 2e35, 2e41 which look far more appropriate.

How many of these Rxes, I wonder, could I get into one PX25 envelope?

Back to the big job. I'm on the RF stages now; must have them taking DC before I can test the phase splitter or the line voltage will be too high (design fault!). I'm not going to screen away all feedback and then deliberately introduce reaction...let's just see what happens, with the two stages ganged by the rubber band. The backlash is deliberate, of course, so that the operator of this Rx, being experienced, can alter the bandwidth to suit his sensitivity and selectivity requirements.

For the same reason I haven't bypassed the two "cathode" bias resistors - that is to say the two 230 V 15 W filament bulbs - in the PP output stage. Worry about that in the unlikely event of it not being loud enough.

Thanks someone for reminding me how the OP transformer used to be on the LS, _hot_ wired to the HT and OP stage. So my unisolating OP choke isn't a nasty precedent.

At school, two of us stood left ear pressed to right ear but separated by a sheet of brown paper; then we each applied a wetted finger to one anode (each) of a PP 807 AF output stage. Yes, we DID hear the music; and we are both still quite all right. Zeep zeep deedle boing. Activity on this project to slow down a bit when visitor arrives any moment for 3 or 4 days.

Your suggestions re all the preceding questions always welcome, and thanks already for quite a few.

Bill
GM8APX, qthr=No 6, EH4 6JY==No Rectangulars=Cave Felem==Ikke Hawkering

Hannibal, cum victoria posset uti frui maluit

Net-Tamer V 1.10 - Registered

End of BOATANCHORS Digest 1946
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